

Amendments to the Claims:

Please cancel claims 1 through 48. Accordingly, claims 49 through 56 are pending upon entry of this Preliminary Amendment. The purpose of this amendment is to economize on USPTO fees.

Listing of Claims:

Claims 1-48 (cancelled)

Claim 49 (original): A method for manipulating magnetic particles, comprising the steps of:

- a) providing an electromagnetic chip comprising one or more micro-electromagnetic units;
- b) contacting a sample comprising magnetic particles with said electromagnetic chip; and
- c) modulating electric currents applied to one or more of said micro-electromagnetic units so as to change the magnetic field distribution of said electromagnetic chip, thereby altering magnetic forces acting on said magnetic particles.

Claim 50 (original): The method of claim 49, wherein said magnetic particles comprise at least one moiety, wherein said moiety is optionally linked to said magnetic particle.

Claim 51 (original): The method of claim 50, wherein said link is through linkage molecules, a covalent bond or biological affinity.

Claim 52 (original): The method of claim 50, wherein said moiety is selected from the group consisting of nucleic acid molecules, DNA, RNA, polypeptides, proteins, carbohydrates, lipids, prokaryotic cells, eukaryotic cells, prions, viruses, parasites, antibodies, lectins or receptors.

Claim 53 (original): The method of claim 49, wherein said electromagnetic chip comprises a magnetophoretic device.

Claim 54 (original): The method of claim 49, wherein said electromagnetic chip comprises a particle switch.

Claim 55 (original): The method of claim 49, wherein said electromagnetic unit comprises a core that optionally comprises at least one terminal structure.

Claim 56 (original): The method of claim 49, wherein said electromagnetic chip comprises dipoles.